WHAT IS CLAIMED IS:

1. A semiconductor laser assembly comprising:

a substrate including a first mount surface and a second mount surface;

a submount mounted on the first mount surface of the substrate;

a laser diode mounted on the submount and having at least one light emission point and an electrode; and

a monitoring photodiode mounted on the second mount surface of the substrate and having a light-receiving surface which receives light emitted from the light emission point, and a relay electrode connected to the electrode of the laser diode by a metal wire.

2. The semiconductor laser assembly according to claim 1, wherein a height of the first mount surface in a direction normal to an upper surface of the substrate is higher than that of the second mount surface.

3. The semiconductor laser assembly according to claim 2, wherein, as seen from above, the metal wire is disposed approximately consistent with an optical axis of the laser diode.

4. The semiconductor laser assembly according to claim 1, wherein the light-receiving surface of the monitoring photodiode is located approximately at the same height as or lower than the light emission point of the laser diode.

5. The semiconductor laser assembly according to claim 1, wherein the first and second mount surfaces of the substrate and a laser diode mount surface of the submount are approximately parallel to one another.

6. The semiconductor laser assembly according to claim 5, the laser diode mount surface of the submount is approximately at the same height as the light-receiving surface of the monitoring photodiode.

7. The semiconductor laser assembly according to claim 1, wherein the submount is made of an insulating material having higher heat conductivity than the monitoring photodiode.

8. The semiconductor laser assembly according to claim 1, wherein the submount has a length in a direction of an optical axis of the laser diode that is approximately equal to a resonator length of the laser diode.

9. The semiconductor laser assembly according to claim 1, wherein at least one additional laser diode is mounted on the submount, said additional laser diode also has at least one light emission point and an electrode, and the monitoring photodiode is provided with an additional relay electrode connected to the electrode of said additional laser diode by a metal wire.

10. The semiconductor laser assembly according to claim 1, wherein the laser diode has a plurality of light emission points.

11. The semiconductor laser assembly according to claim 1, wherein two separated metal layers are disposed on the submount, and the laser diode is mounted on the submount through the metal layers in a junction-down manner.

12. The semiconductor laser assembly according to claim 11, wherein the laser diode has two light emission points from which the laser diode emits laser beams with different wavelengths, and electric power is supplied to the laser diode through each of the metal layers, independently of each other so that the two light emission points are controlled independently.

13. The semiconductor laser assembly according to claim 1, wherein the substrate is composed of a metal lead.

14. The semiconductor laser assembly according to claim 1, wherein the relay electrode is connected to an electrode on the substrate by a metal wire.